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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.      | CONFIRMATION NO. |
|--|-------------|----------------------|--------------------------|------------------|
| 10/796,967   | 03/11/2004  | Richard Lang         | LANG3004/JEK             | 1925             |
| 23364  | 7590        | 12/10/2004           | EXAMINER                 |                  |
| BACON & THOMAS, PLLC<br>625 SLATERS LANE<br>FOURTH FLOOR<br>ALEXANDRIA, VA 22314 |             |                      | BLACKMAN, ROCHELLE ANN J |                  |
|  |             |                      | ART UNIT                 | PAPER NUMBER     |
|  |             |                      | 2851                     |                  |

DATE MAILED: 12/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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|                              |                                      |                                    |  |
|------------------------------|--------------------------------------|------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/796,967 | <b>Applicant(s)</b><br>LANG ET AL. |  |
|                              | <b>Examiner</b><br>Rochelle Blackman | <b>Art Unit</b><br>2851            |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 March 2004.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

The abstract of the disclosure is objected to because "Figure 1." after line 15, should be omitted. Correction is required. See MPEP § 608.01(b).

### *Claim Objections*

1. Claims 1, 2, 11, 14, 16, and 17 are objected to because a broad range or limitation followed by linking terms (e.g., preferably, maybe, for instance, especially, and in particular) together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(d). Appropriate correction is required.
2. Claim 11 is objected to because the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrases are part of the claimed invention. See MPEP § 2173.05(d). Appropriate correction is required.
3. Claim 17 is objected to because the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). Appropriate correction is required.
4. Claim 6 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim.

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See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7, 8, and 10-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Wada et al. (U.S. Patent No. 6,464,375).

Wada discloses a projection device (see FIGS. 1-29), wherein light emitted from a light source system(89, 110, 145, 153), split different colors, in particular primary colors, and subsequently transmitted to respective light valves (212-214 or 238-240), said light source system comprising: plurality of light sources (70a, 71a); plurality reflectors (72, 73) condensing the light rays from the light sources; separation elements (78a) for dividing and interlacing the light of the light sources, wherein, in the optical path between said light sources and said separation elements additional reflecting means (76, 77), preferably mirrors, are provided; wherein said reflectors are not facing each other (see positions of 72 and 73); wherein the reflectors are facing in the same direction (see positions of 72 and 73); wherein the reflectors are arranged next to each other (see positions of 72 and 73); wherein the reflectors with their front sides are substantially the same plane (see location of "front planes" of 72 and 73); wherein said

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projection device further comprises optical components (see 80-82, 100-104, 200) which are arranged such configuration that at least one splitting of the light emitted from said light source system takes place a location which the light of said light source system still in a quasi-parallel or parallel state; wherein said projection device further comprises optical components amongst which at least one light integrator or light integrator component (see 81-83 or 100-104), which integrator or light integrator component located the path followed by the light downstream of at least one light splitting element (231-233) for realizing said light splitting; wherein said light integrator components are substantially composed fly-eye lenses, forming part fly-eye integrator (see 81, 82 or 100, 101); wherein in the path of the light of at least one primary color, after being splitted from the other primary colors, a polarizer (235-237), particular prepolarizer, for example prepolarizing array, provided downstream from the corresponding integrator or integrator components; wherein, in the path followed by the light, directly or indirectly downstream from said integrator said integrator components, an imaging lens or condenser lens (see 80 or 104, 209-211) provided; wherein the path followed by the light, upstream from the light splitting elements, is free from an integrator or integrator components (see light path containing all light rays leading up to element 80 or 140); wherein the path followed by the light, upstream from the light splitting elements is free from any sort of polarizer, particular prepolarizing arrays (see light path containing all light rays leading up to element 101); wherein the path followed by the light, upstream from the light splitting elements, free from any sort of imaging or condenser lenses (see light path containing all light rays leading up to element 78);

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wherein said projection device further comprises optical components amongst which at least one polarizer (see 235-237), particular a prepolarizing array, wherein this polarizer prepolarizing array is located downstream from at least one light splitting element (231-235), and preferably downstream of all light splitting elements which are required to obtain the light of the color in which said polarizer prepolarizing array is located; wherein said light valves create colored images which by means polarizing beam splitters, are directed to a color composition element (215 or 245), such as an X-cube, wherein at least one of said polarizing beam splitters, and preferably each of said polarizing beam splitters, consist of wire-grid polarizers.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wada et al. (U.S. Patent No. 6,464,375) in view of Battarel et al. (U.S. Patent Application Publication No. 2001/0015794).

Wada discloses the claimed invention except for "wherein said device comprises a light integrator or light integrator components for each of said colors, each of these light integrators or light integrator components being located the path followed by the light downstream of the light splitting elements creating the light the color concerned".

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Battarel teaches providing a light integrator or integrator components (122, 124, 126) for each of said colors, each of these light integrators or light integrator components being located in the path followed by the light downstream of the light splitting elements creating the light the color concerned (see location of 122, 124, 126 in FIG. 5).

It would have been obvious to one of ordinary skill in the art at the time invention was made to provide the "projection device" of the Wada reference with a "light integrator or light integrator components for each color...located the path followed by the light downstream of the light splitting elements creating the light the color concerned", as taught by Battarel in order to provide light integration for each light valve, thus enhancing projected images and to save space in the optical system of the "projection device" (see pg. 3, paragraphs [0064]-[0065]).

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rochelle Blackman whose telephone number is (571) 272-2113. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RB

  
JUDY NGUYEN  
PRIMARY EXAMINER